IN THE SPECIFICATION:

Please replace paragraph number **[0022]** with the following rewritten paragraph:

[0022] The reactive composition may also optionally include conventional binders or filler materials. Energetic polymers, inert polymers, or fluoropolymers may also optionally be used to optimize the rheological properties of the reactive composition or as a processing aid. The polymer may soften or melt at the processing temperature. The polymer may be present in the reactive composition from approximately 0.5% to approximately 50%, such as from approximately 0.5% to approximately 5%. The polymer may include, but ~~are~~ is not limited to, polyglycidyl nitrate ("PGN"), nitratomethylmethyloxetane ("polyNMMO"), polyglycidyl azide ("GAP"), diethyleneglycol triethyleneglycol nitraminodiacetic acid terpolymer ("9DT-NIDA"), poly(bis(azidomethyl)oxetane) ("polyBAMO"), poly(azidomethylmethyloxetane) ("polyAMMO"), poly(nitraminomethyl methyloxetane) ("polyNAMMO"), poly(bis(difluoroaminomethyl)oxetane) ("polyBFMO"), poly(difluoroaminomethylmethyloxetane) ("polyDFMO"), copolymers thereof, and mixtures thereof. The polymer may also include cellulosic polymers, such as cellulose acetate butyrate ("CAB") or nitrocellulose; nylons; polyesters; fluoropolymers; energetic oxetanes; waxes; and mixtures thereof.

Please replace paragraph number **[0034]** with the following rewritten paragraph:

[0034] The reactive composition utilizing the polymer/plasticizer system may be processed in extruders, injection molders, and similar processing equipment. If the metal material has a melting point from approximately 46°C to approximately 250°C and the energetic material is a liquid at the processing temperature, the reactive composition may be produced by a melt-pour process in an existing melt-pour facility. Therefore, new equipment and facilities may not be necessary to produce the reactive composition. If the metal material has a melting point ranging from approximately 75°C to approximately 105°C and the energetic material is a liquid at the processing temperature, the reactive composition may be produced in existing melt-pour facilities used to produce ~~conventional,~~ conventional TNT-containing explosives. While it is desirable for the reactive composition to be produced by a melt-pour technique, it is

contemplated that the reactive composition may be produced by other techniques, especially if the energetic material is a solid material.

Please replace paragraph number **[0052]** with the following rewritten paragraph:

[0052] The reactive compositions that included AlH_3 as the second metal material also had increased, ~~calculated~~ calculated, detonation parameters. For instance, the addition of AlH_3, as in Formulations D and M, drastically boosted the detonation temperature, heat of combustion, and total energy of the reactive compositions. A comparison of the reactive compositions having Indalloy® 174 or Wood's Metal as the metal material and TNAZ or HMX as the energetic material showed that as the relative amount of energetic material increased, the density of the explosive composition decreased and each of the other parameters increased.

Please replace paragraph number **[0055]** with the following rewritten paragraph:

[0055] The detonation performance of these reactive compositions was measured by a Dent and Rate test. A test sample of each of the reactive compositions was held in a steel pipe (3.7 cm diameter x 14 cm length) that had five holes drilled in the side for velocity switches from which the detonation velocity was calculated by regression analysis. The test sample was detonated using a booster that was 160 grams pentolite (50 pentaerythritol tetranitrate ("PETN"):50 TNT) and the depth of the dent made in a witness plate was measured. The dent depth was correlated to the detonation pressure, with a deeper dent corresponding to a higher pressure.

Table 3: Laboratory Scale Hazards Property and Dent and Rate Comparison

Formulation	Indalloy® 174	A	B	C	D	E	F	G	H	I	J	K	L
Oxidizer Particle Size									Fine	5-100	200	20	400
Density (g/cc, measured)	8.54		3.42	2.88			3.81	3.78			4.66		5.68
ABL Impact (cm)[a]	80	1.8			1.1	800	80		13	1.8	1.8	21	80
BOE Impact (4")[b]	Pass	Fail				>8	Pass		Pass		Pass	Pass	Pass
ABL Friction (psi @8ft/sec)[c]	800	800			<25@2	163	800	800	800	25@3	25	800	800
TC ESD (J)[d]	>8	>8			0.92		5.23	1.23	7.3	1.5	>8	>8	>8
SBAT (exotherm onset, °C)[e]	None	163			117		219	197	167	206	182	174	171
DSC (exotherm onset, °C)	--	259					334				440		
VTS (ml/g)[f]	0.19	0.23					0.25				0.19	0.20	0.22
TGA under N_2 (% weight loss@ x°C	1.8@188	25.9@212					35.4@248				36.6@400	11.5@754	10.7@649
Dent depth (mm)	0.0	1.4				9.9	0.0				0.0		0.0
Detonation Velocity (km/s)	2.3	6.9				8.4	2.0				2.2		0.8

[a] Threshold Initiation Level (TIL) for 20 no-fire drops per drop height
[b] Pass is six of ten no-fire impacts
[c] TIL for 20 no-fires
[d] 50% ignition point
[e] Simulated Bulk Autoignition Temperature measures the ability of a sample to absorb heat where an exotherm <107°C indicates a sensitive material
[f] Vacuum Thermal Stability at 75°C for 48 ~~hour~~ hours

Please replace paragraph number **[0057]** with the following rewritten paragraph:

[0057] As indicated in Table 3, the measured dent depth of 9.9 mm for Formulation E was significantly less than the dent depth anticipated from the calculated detonation pressure of 364 kbar, which is similar to the dent depth observed with Composition B or Composition C. However, the observed detonation velocity of 8.4 km/s was 85% greater than calculated and was similar to the detonation velocity observed for very high-energy pressed ~~explosives~~ explosives, such as LX-14, which has 95.5% HMX. Similar results were observed for Formulation A. The reactive compositions that contained DNT, AP, and KN (Formulations F and J-L) gave similar results to the neat Indalloy® 174.

Please replace paragraph number **[0058]** with the following rewritten paragraph:

Example 14

Safety Results for Reactive Compositions including the Polymer/Plasticizer System

[0058] Formulations having the components listed in Table 4 were produced and safety testing was performed on these formulations. Impact properties of the formulations were measured using an impact test developed by Thiokol Corporation ("TC"). Friction properties of the formulations were measured using a friction test developed by Allegheny Ballistics Laboratory ("ABL"). Electrostatic discharge ("ESD") of the formulations was measured using an ESD test developed by TC. Onset of ignition exotherms and sensitivity to elevated temperatures of the formulations ~~was~~ were measured using a Simulated Bulk Autoignition Test ("SBAT"). These tests are known in the art and, therefore, details of these tests are not included herein.

Table 4: Safety Properties of Reactive Compositions that Include the Polymer/Plasticizer System.

Formulation	TC Impact (in.)	ABL Friction (lbs)	TC ESD (J)	SBAT Onset (°F)
90% Indalloy® 174 10% KP	>46	800 @ 8fps	>8	340
80% Indalloy® 174 20% KP	33.55	660 @ 8 fps	>8	349
60% Indalloy® 174 40% KP	41.2	100 @ 6 fps		
85.5% Indalloy® 174 9.5% KP 1% CAB 4% BDNPA/F	43.86	50 @ 4 fps	>8	309
76% Indalloy® 174 19% KP 1% CAB 4% BDNPA/F	14.33	50 @ 3 fps	>8	317
68% Indalloy® 174 14.5% KP 14.5% RDX 0.4% CAB 2.6% BDNPA/F	13.91	<25 @ 2 fps	7.5	308
57% Indalloy® 174 38% KP 1% CAB 4% BDNPA/F	18.64	25 @ 4 fps	>8	376
25% Indalloy® 174 28% KP 28% RDX 10% Mg 1.5% CAB 8% BDNPA/F	18.64	25 @ 4 fps	>8	336
20% Indalloy® 174 70% CL-20 1% CAB 9% BDNPA/F	19.90	25 @ 6 fps	>8	310

Formulation	TC Impact (in.)	ABL Friction (lbs)	TC ESD (J)	SBAT Onset (°F)
20% Indalloy® 174 55% CL-20 15% Mg 1% CAB 9% BDNPA/F	16.82	25 @ 2 fps	7.25	345
18% Indalloy® 174 76% RDX 6% CBN and BDNPA/F	21.55	800 @ 8 fps	>8	287
17% Indalloy® 174 78% KP 5% CBN and BDNPA/F	18.80	800 @ 8 fps	>8	287
14% Indalloy® 174 81% KP 5% CBN and BDNPA/F	18.67	800 @ 8 fps	>8	371
13.5% Indalloy® 174 82% RDX 4.5% CBN and BDNPA/F	18.45	800 @ 8 fps	7.5	350

Please replace paragraph number **[0059]** with the following rewritten paragraph:

[0059] The results depicted in Table ~~4 showed~~ show that the reactive compositions including the polymer/plasticizer system ~~had~~ have good safety properties.

Please replace paragraph number **[0061]** with the following rewritten paragraph:

[0061] Each of the formulations was formed ~~in to~~ into a ½-inch diameter cylindrical pellet and compressive strength tests were performed on each of the pellets as known in the art. As shown in FIGs. 1 and 2, the RMEB-1 formulation was able to withstand a higher load. However, the RMEB-1 w/binder formulation exhibited more elastic deformation even though only a small amount of the polymer/plasticizer system was used. The RMEB-1 w/binder formulation also exhibited the ability to flow under a load and to resist deformation.

Please replace paragraph number **[0062]** with the following rewritten paragraph:

[0062] In order to determine the effect of the polymer/plasticizer system, the toughness of each form was calculated by integrating each curve. As shown in FIG. 3, the RMEB-1 w/binder formulation was almost twice as tough as the RMEB-1 formulation. As such, the RMEB-1 w/binder formulation is less likely to fracture. Fractured materials are less stable and more prone to premature initiation from ~~externals~~ external stimuli than nonfractured materials. In contrast, the RMEB-1 formulation was less tough, more brittle and more prone to fracture. Photographs of the pellets before and after the compressive strength tests are shown in FIGs. 4-7.